

p.3-12:

3.3.2. Parcels B-1 and B-2

3.3.2.1. RA Activities and Implementation of ICs

Radiological remediation was started in 2006 and completed in 2010 under a basewide TCRA (Navy, 2006).

In total, 65,184 cubic yards of soil was removed from 24,826 linear feet of sanitary sewer and storm drain lines; approximately 2,910 cubic yards of soil was disposed of off site as LLRW. Six radiologically impacted buildings (103, 113, 113A, 130, 140, and 146), three former building sites (114, 142, and 157), and the Building 140 discharge channel were screened and remediated (Tetra Tech EC, Inc. [TtEC], 2012a).

All radiological work is currently being reviewed to determine if current site conditions are compliant with the RAOs.

p. 3-22

3.3.5. Parcel D-2

3.3.5.1. RA Activities and Implementation of ICs

The ROD for Parcel D-2 was finalized in August 2010 (Navy, 2010a). The ROD concluded that no further

action was necessary for Parcel D-2. Radiological remediation was performed in 2009 as part of a basewide

TCRA (Navy, 2006). In total, 1,988 linear feet of trench and 1,434 cubic yards of soil were excavated; approximately 45 cubic yards of soil was disposed of off site as LLRW (TtEC, 2011c). One radiologically impacted building (Building 813) was screened and remediated. All radiological work is currently being reviewed to determine if current site conditions are compliant with the RAOs.

3.3.5.2. LTM

p. 54 of pdf, p. 3-32 of hard copy

3.3.9. Parcel G

3.3.9.1. RA Activities and Implementation of ICs

Radiological remediation at Parcel G began in 2007 (under a basewide TCRA [Navy, 2006]), and continued

as part of the RA. In total, 50,688 cubic yards of soil was removed from 23,166 linear feet of sanitary sewer

and storm drain lines; approximately 2,828 cubic yards of soil was disposed of off site as LLRW. Nine radiologically impacted buildings (351, 351A, 364, 365, 366, 401, 408, 411, and 439) and one former building site (317/364/365) were screened and remediated (TtEC, 2011b). All radiological work is currently being reviewed to determine if current site conditions are compliant with the RAOs.

3.3.11. Parcel UC-3

3.3.11.1. RA Activities and Implementation of ICs

Radiological removals were started in 2009 and completed in 2011, under a basewide TCRA and prior to the issuance of the ROD. In total, 18,024 cubic yards of soil was removed from 18,363 linear feet of

sanitary sewer and storm drain lines; approximately 789 cubic yards of soil was disposed of off site as LLRW (TtEC, 2012b). All radiological work is currently being reviewed to determine if current site conditions are compliant with the RAOs.

p. 65 of pdf, p. 5-1 of hard copy

5.1. COMMUNITY NOTIFICATION, INVOLVEMENT, AND SITE INTERVIEWS

The most common issues and concerns raised during the interviews are summarized below.

- Concerns related to the adequacy of historical radiological remediation based on the discovery of widespread falsification of radiological data by a Navy contractor. The radiological issues have resulted in (1) distrust of the Navy's cleanup program by the regulatory agencies and the community; (2) delays in the achievement of cleanup, transfer, and redevelopment of the affected parcels; and (3) increased workloads for regulatory agency representatives, resulting in delays in document reviews.
- Community expectations that the regulatory agencies more actively oversee future Navy work and be involved with developing the plans to address the radiological remediation issues to ensure that work is performed appropriately.
- The need for the Navy to increase its community involvement effort and ensure the transparent exchange of information with the public.

p. 74 of pdf,

6.1.6. Radiological Surveys and Remediation

Are the radiological surveys and remediation remedies implemented in IR-07/18 and Parcels B-1, B-2, C, D-1, D-2, E, G, UC-1, UC-2, and UC-3 functioning as intended by the decision documents? YES (for

IR-07/18 and Parcel D-1); NO (for Parcels B-1, B-2, C, D-2, E, G, UC-1, UC-2, and UC-3).

RA Performance: Published documents report the completion of radiological surveys and remediation in IR-07/18 and Parcels B-1, B-2, C, D-1, D-2, E, G, UC-1, UC-2, and UC-3. In January 2018, the Navy determined that a significant portion of the radiological survey and remediation work completed to date

was compromised by potential manipulation and/or falsification of data by one of its radiological remediation contractors. Compromised data were identified in reports associated with Parcels B-1, B-2, C,

D-2, E, G, UC-1, UC-2, and UC-3. The Navy is currently in the process of planning corrective actions to ensure the radiological remedies specified in the RODs are implemented as intended.

The radiological remedies that have been successfully completed and are functioning as intended are described below.

- Radiological surveys removals were completed in 2010 at IR-07/18. A MARSSIM Class 1 survey has been completed for the entire surface of IR-07/18, and the top 1 foot of soil was remediated to levels specified in the Amended ROD to ensure a radiologically clean surface before the cover remedy was applied. The constructed cover over the portion of IR-07/18 (within the radiological ARIC) prevents exposure to radionuclides in accordance with the RAOs. CDPH completed further surface scans at IR-07/18. CDPH concluded that there was no evidence or

indication of radiological health and safety concerns based on surface gamma radiation in the surveyed areas of IR-07/18 (CDPH, 2013).

- The Phase 1 radiological TCRA has been completed at Parcel D-1, and the RACR for the Phase 2 radiological TCRA is currently being developed. The TCRA's included radiological surveys and remediation for radiologically impacted buildings, structures, and former building sites. Additionally, radiologically impacted storm drain and sanitary sewer lines were removed and the trenches were surveyed and remediated.

System O&M: The durable covers within the radiological ARIC in IR-07/18 are monitored and maintained

in accordance with the O&M Plan (ERRG, 2012d). Regularly scheduled inspections performed by qualified professionals have verified that all durable covers within the post-construction O&M phase are in

good condition, and that O&M of the covers has been effective. Minor issues encountered, such as animal burrows in soil covers, areas of poor vegetation growth on soil covers, and breaches of the perimeter fence,

have not compromised the integrity of the remedy. O&M costs are generally consistent from year to year and are not anticipated to change significantly as long as the current configurations of the durable cover remedies are maintained within the radiological ARIC.

O&M is not applicable to the completed radiological remedies in Parcel D-1, because this parcel has been radiologically released.

Implementation of ICs and Other Measures: The IC performance objectives that relate to preventing potential exposure to radionuclides within the radiological ARIC in IR-07/18 are being met by access restrictions. The site is currently, and will remain, enclosed by a perimeter fence with locked gates until transfer to the OCII. The durable covers are inspected and maintained in accordance with the O&M Plan (ERRG, 2012d) and prevent contact with underlying soil. The activity and land use restrictions described in the LUC RD Report (ChaduxTt, 2010a) will be incorporated into the Quitclaim Deed and Covenant to Restrict Use of Property and will take effect upon transfer to the OCII and issuance of those documents.

Future implementation of land use and activity restrictions will effectively prevent exposure to COCs following transfer of the property.

ICs for radionuclides are applicable to a portion of Parcel D-1, as this area was not released by the Phase 1

and Phase 2 TCRA's. The Navy is planning to revise the existing LUC RD for Parcel D-1 to define those ICs and their area of applicability.

The Navy performs annual inspections to verify compliance with the ICs designated by each parcel's LUC RD. The inspection reports certify that the ICs related to land use and activity restrictions are being implemented in accordance with the LUC RDs.

p. 82 of pdf, p. 8-16 of hard copy

6.2.5. Expected Progress Toward Meeting RAOs

The Navy has concluded that a significant portion of the radiological survey and remediation work completed to date was compromised by potential manipulation and/or falsification of data by one of its radiological remediation contractors. Compromised data were identified in reports associated with Parcels B-1, B-2, C, D-2, E, G, UC-1, UC-2, and UC-3. The Navy is currently in the process of implementing corrective actions to ensure that the radiological remedies specified in the decision documents have been implemented as intended. The radiological rework will successfully achieve the

RAOs for radionuclides specified in the RODs.

p. 85 of pdf, p. 7-2 of hard copy

Site(s): Parcels B-1, B-2, C, D-2, E, G, UC-1, UC-2, and UC-3	Issue Category: Remedy Protectiveness			
	Issue: The Navy has determined that a significant portion of the radiological survey and remediation work completed to date was compromised by potential manipulation and/or falsification of data by one of its radiological remediation contractors. It is currently not known if the RAOs for radionuclides have been achieved in Parcels B-1, B-2, C, D-2, G, E, UC-1, UC-2, and UC-3.			
	Recommendation: The Navy is currently in the process of implementing corrective actions to ensure that the radiological remedies specified in the decision documents have been implemented as intended. The radiological rework will successfully achieve the RAOs for radionuclides specified in the RODs. It is recommended that the Navy continue to perform its investigations to definitively determine that the radiological RAOs have been met at each of the affected parcels. It is anticipated that the radiological rework will span 5 years and be completed prior to the next five-year review. The results of the radiological rework should be discussed in the next five-year review.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	To Be Determined	Navy	EPA/DTSC/Water Board	11/1/2023

Tables include brief summaries of rad work done, by parcel.